

CLAIMS

1. An optical dermatology apparatus comprising:
a plurality of optical radiation sources;
a mount in which said sources are positioned at selected locations, said mount being adapted for positioning adjacent a treatment region of a subject's body; and
controls for operating said sources in an irradiation pattern.
2. The apparatus of claim 1, wherein the irradiation pattern formed by the controls comprises a spatial pattern.
3. The apparatus of claim 1, wherein the irradiation pattern formed by the controls is a temporal pattern.
4. The apparatus of claim 3, wherein said sources are operated in a selected sequence to form the temporal pattern.
5. The apparatus of claim 1, wherein said controls comprise a power supply and a switching element which connects said power supply to said sources in said irradiation pattern.
6. The apparatus of claim 1, wherein said mount further comprises a component which protects a selected portion of the subject's treatment region by preventing application of light from said sources to said selected portion.
7. The apparatus of claim 6, wherein said treatment region is the subject's face and wherein said selected portion is the subject's eyes.
8. The apparatus of claim 6, wherein the apparatus further comprises an interlock which operates in conjunction with said controls to disable operation of said sources unless said component is properly positioned to protect said selected portion.

9. The apparatus of claim 1, wherein said mount further comprises a component which permits said mount to be fitted to said treatment region with substantially uniform spacing between each of said sources and said treatment region.
10. The apparatus of claim 1, wherein said mount comprises an optically transparent component between said sources and said treatment region.
11. The apparatus of claim 10, wherein said transparent component comprises an optical filtering component.
12. The apparatus of claim 10, wherein said component is a protective component for the subject.
13. The apparatus of claim 1, wherein the apparatus further comprises a surface reflecting radiation from said sources to said treatment region.
14. The apparatus of claim 1, wherein the apparatus further comprises a reflecting surface for each of said sources.
15. The apparatus of claim 1, wherein said mount comprises a circuit board, said sources being mounted to said board.
16. The apparatus of claim 1, wherein said sources are U-shaped lamps.
17. The apparatus of claim 1, wherein said sources are solid state light emitters.
18. The apparatus of claim 17, including a lens array for directing light from said light emitters to said treatment region.
19. The apparatus of claim 1, wherein said mount is adapted to fit to all or part of a subject's face.

20. The apparatus of claim 1, wherein said treatment region is one of the subject's face, arm, thigh, leg, arm, hand, neck, hairline, underarms, crotch area, bikini line, buttocks, breast, and stomach, wherein said mount is adapted to be fitted to the treatment region.
21. The apparatus of claim 1, wherein the apparatus further comprises a diagnostic tool mounted in said mount.
22. The apparatus of claim 21, wherein said controls operate in response to said diagnostic tool to control operations of said sources.
23. The apparatus of claim 1, wherein the apparatus further comprises sensors for detecting proper positioning of said mount to said selected treatment region; and wherein said controls operate in response to said sensors to operate said sources only when said mount is properly positioned.
24. A method of performing optical dermatology by operating at least some of a plurality of optical radiation sources mounted adjacent a treatment region of a subject in an irradiation pattern.
25. The method of claim 24, wherein subsets of said sources are operated simultaneously.
26. The method of claim 24, wherein said sources are operated in a selected sequence.
27. The method of claim 24, including protecting a selected portion of the treatment region by preventing application of light from said sources to said selected portion.

28. The method of claim 27, wherein said treatment region is the subject's face and wherein said selected portion comprises the subject's eyes.
29. The method of claim 27, wherein said protecting step further comprises detecting that said selected portion is properly protected, and enabling operation of said sources in response to said detection.
30. The method of claim 24, wherein the method further comprises setting a mount for said sources to said treatment region so as to provide substantially uniform spacing between each said source and said treatment region.
31. The method of claim 24, wherein said treatment region is one of the subject's lower face, entire face, arm, thigh, leg, arm, hand, neck, hairline, underarms, back, crouch area, bikini line, buttocks, breast, or stomach.
32. The method of claim 24, wherein the method further comprises detecting a condition in the treatment region.
33. The method of claim 32, wherein the method further comprises operating said sources in response to said detecting.
34. The method of claim 24, wherein the method further comprises sensing the proper positioning of a mount for said radiation sources to said treatment position; and operating said sources only when said sensing step indicates that said mount is properly positioned.
35. An optical dermatology apparatus, comprising
a mount adapted for positioning in proximity of an area of a patient's skin,
one or more radiation sources disposed in said mount for irradiating at least a portion of said area of the patient's skin, and

a control circuitry electrically coupled to said radiation sources for actuating an irradiation pattern of said radiation sources for performing a treatment protocol.

36. The apparatus of claim 35, wherein said mount is shaped so as to substantially conform to a contour of a patient's body part.

37. The apparatus of claim 35, wherein said treatment protocol comprises selecting wavelengths appropriate for a dermatological condition.

38. The apparatus of claim 35, wherein the control circuitry can be programmed to selectively treat a portion of the treatment area.

39. The apparatus of claim 35, wherein the control circuitry controls activates the selected pattern of said radiation sources in a selected sequence.

40. The apparatus of claim 35, wherein said mount is disposable.

41. The apparatus of claim 35, wherein the apparatus further includes an optically transparent sheath adapted to couple to said mount, wherein said sheath conforms to the treatment area.

42. The apparatus of claim 41, wherein the sheath is user-replaceable.

43. An optical dermatology system, comprising an applicator, comprising
a mount for positioning in proximity of an area of a patient's skin,
a plurality of radiation sources disposed in said mount,
one or more sensors disposed in said mount for collecting any of diagnostics
or monitoring data associated with at least a portion of said area of the patient's skin,
a control circuitry electrically coupled to said radiation sources for selective
actuation thereof, and

a computer in communication with said applicator, said computer receiving data from said sensors and transmitting control signals to said control circuitry based on analysis of said data.

44. The optical dermatology system of claim 43, wherein said control signals cause actuation of at least selected ones of said radiation sources in a selected sequence.

45. The optical dermatology system of claim 43, wherein said computer communicates with said applicator via a wireless communications link.